S Model Dual Expansion Valve
Refrigeration System Operational Analysis Table

This table must be used with charts, checklists and other references to eliminate refrigeration components not listed on the table and external items and problems which can cause good refrigeration components to appear defective.

Operational Analysis (listed below)	**1**	**2**	**3**	**4**
Ice Production	Published 24 hour ice production_____ Calculated (actual) ice production _____ NOTE: The ice machine is operating properly if the ice production and ice formation pattern is normal and ice production is within 10% of charted capacity.			
Ice Formation Pattern **Left side** _____ **Right side** _____	Ice formation is extremely thin on top of one side of evaporator -or- No ice formation on one side of evaporator	Ice formation is extremely thin on top of one or both sides of evaporator -or- No ice formation on entire evaporator	Ice formation normal -or- Ice formation is extremely thin on bottom of one side of evaporator -or- No ice formation on entire evaporator	Ice formation normal -or- No ice formation on entire evaporator
Freeze cycle DISCHARGE pressure _____ _____ _____ 1 minute Middle End into cycle	If discharge pressure is **High or Low** refer to a freeze cycle high or low discharge pressure problem checklist to eliminate problems and/or components not listed on this table before proceeding.			
Freeze cycle Suction Pressure _____ _____ _____ 1 minute Middle End	If suction pressure is **High or Low,** refer to a freeze cycle high or low suction pressure problem checklist to eliminate problems and/or components not listed on this table before proceeding.			
	Suction pressure is **High**	Suction pressure is **Low**	Suction pressure is **High**	Suction pressure is **High**
Harvest Valve Wait 5 minutes into the freeze cycle. Compare temperatures of **compressor discharge line** and **both harvest valve inlets.** Comp. Disc. _____ °F Left gas inlet _____ °F Right gas inlet _____ °F	One harvest valve inlet is **Hot** -and- approaches the temperature of a **Hot** compressor discharge line.	Both harvest valve inlets are **cool** enough to hold hand on -and- the compressor discharge line is **Hot**.	Both harvest valve inlets are **cool** enough to hold hand on -and- the compressor discharge line is **cool** enough to hold hand on.	Both harvest valve inlets are **cool** enough to hold hand on -and- the compressor discharge line is **Hot**.
Discharge Line Temperature Record freeze cycle discharge line temperature at the end of the freeze cycle _____**°F (°C)**	Discharge line temperature **150°F (65.6°C) or higher** at the end of the freeze cycle.	Discharge line temperature **150°F (65.6°C) or higher** at the end of the freeze cycle.	Discharge line temperature **less than 150°F (65.6°C)** at the end of the freeze cycle.	Discharge line temperature **160°F (65.6°C) or higher** at the end of the freeze cycle.
Final Analysis Enter total number of boxes checked in each column.	**Harvest Valve Leaking**	**Low on Charge -or- TXV Starving**	**TXV Flooding**	**Compressor**